From Palliation to Cure: A Case of Long-Term Survival in Metastatic Cervical Cancer to the Stomach After Aggressive Surgery

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Abstract

Gastric metastases from cervical squamous cell carcinoma (SCC) are exceedingly rare (<1% incidence), posing diagnostic and therapeutic challenges due to non-specific symptoms and endoscopic mimicry of primary gastric tumorsA 39-year-old female with prior cervical squamous cell cancer presented with epigastric pain, weight loss, and anemia. Endoscopy revealed a gastric mass; biopsy confirmed metastatic SCC. Immunohistochemistry confirmed cervical origin. Imaging showed local invasion (spleen, pancreas, diaphragm) without other sites of metastases. She underwent radical gastrectomy with en-bloc resection and D2 lymphadenectomy, achieving R0 margins. No recurrence was observed at 8-year follow-up. Immunohistochemistry proved critical in distinguishing metastatic cervical SCC from primary gastric SCC. This case challenges the palliative paradigm for gastric metastases, demonstrating that R0 resection may achieve durable remission in localized disease. The 8-year survival contrasts sharply with historical data, highlighting the role of aggressive surgery in oligometastatic settings. Gastric metastasis from cervical cancer is rare, and there are no established management guidelines. This case suggests that surgical resection may provide remission.

Keywords: Gastric Metastasis; Cervical Cancer; Surgery; Squamous Cell Cancer.

Introduction

Gastric metastasis originating from gynecological malignancies is an infrequent phenomenon, with the stomach being an uncommon site of distant dissemination in cervical and uterine cancers. The natural progression of these malignancies typically favors local extension and regional lymphatic spread, while distant metastases more frequently occur in organs such as the lungs, liver, and bones. Reports of gastric involvement are notably scarce, with autopsy series indicating an incidence ranging from 0.2% to 0.9% for gastric metastases specifically from cervical and uterine cancers.[1] This rarity underscores the clinical challenges faced by healthcare practitioners, who often operate with limited evidence to inform suspicion, diagnosis, and management strategies.

Gastric metastases are more frequently associated with primary malignancies such as melanoma, breast, esophagus and lung cancers, which are well-documented sources of secondary gastric involvement.[1] In contrast, metastatic dissemination from gynecological tumors remains underrepresented in scholarly literature, thereby presenting significant diagnostic and therapeutic hurdles. These cases are often misdiagnosed or overlooked due to the non-specific nature of gastrointestinal symptoms observed in patients with advanced gynecological malignancies. Presentations such as nausea, vomiting, abdominal pain, anemia, dysphagia, and upper gastrointestinal bleeding are

frequently ascribed to chemotherapy side effects or more prevalent gastrointestinal disorders unless thoroughly investigated.[2]

Gastric metastases stemming from uterine cancer, while exceedingly rare, merit increased clinical scrutiny due to their potential to mimic primary gastric neoplasms both clinically and radiographically. Endoscopic findings are often non-specific and can range from submucosal masses and ulcerations to mucosal irregularities and diffuse thickening resembling linitis plastica.[3] Such appearances do not readily distinguish gastric metastases from primary gastric carcinomas, thus histological confirmation supplemented by immunohistochemical staining to elucidate tumor origin through the expression of markers such as CK7, CK20, and p16, among others.[4]

The infrequency of gastric metastases in gynecological malignancies has constrained the establishment of standardized management protocols. Consequently, treatment strategies are often derived from individual case reports, small case series, and multidisciplinary discussions. Therapeutic approaches are predominantly palliative and symptom-directed, focusing on alleviating obstructive symptoms, controlling hemorrhage, and enhancing nutritional status.[5] Endoscopic interventions such as tumor debulking, stent placements, or argon plasma coagulation may provide temporary alleviation from obstructive or bleeding complications, while systemic chemotherapy addresses the underlying metastatic disease. Additionally, radiotherapy may serve a supportive role in alleviating localized gastric symptoms, especially in patients who are deemed unfit for more invasive interventions.[5]

Surgical intervention for gastric metastases originating from gynecological cancers remains a contentious topic and is typically reserved for exceptional circumstances. Most reported cases involve diffuse disease when gastric involvement is detected, thereby limiting the feasibility of potentially curative surgical approaches. Nevertheless, select cases have documented favorable outcomes associated with surgical resection of gastric metastases, particularly when the metastatic burden is minimal and the patient maintains an adequate functional status.[6] Although rare, these cases suggest that aggressive surgical management may play a role in symptom control and potentially extending survival among well-selected patients.

In this article, we present a rare case of metastatic cervical squamous cell carcinoma affecting the stomach, which was successfully managed with radical surgical resection. This case highlights the potential role of aggressive intervention in carefully selected patients.

Case Report

A 39-year-old female, with a history of radical hysterectomy and bilateral salpingo-oophorectomy for cervical squamous cell carcinoma (SCC) in 2016, presented with progressive gastrointestinal symptoms, including burning epigastric pain, early satiety, significant weight loss (4 kg over 5 months), nausea and dyspepsia. She has a strong family history of gynecologic malignancies. Her family history was significant for three first-degree relatives diagnosed with uterine cancer.

On examination, the patient was pale with no lymphadenopathy and an unremarkable abdominal examination aside from a midline surgical scar. Laboratory investigations revealed anemia, prompting endoscopic evaluation.

Upper GI endoscopy (OGD) revealed a large, fungating, friable mass with ulcerated margins in the gastric fundus extending below the lesser curvature [Figure 1]. Biopsy of the mass showed poorly differentiated squamous cell carcinoma (SCC) with intestinal metaplasia. Immunohistochemistry (IHC) demonstrated positivity for p16, CK5/6, CK7, CK14, and p63, which strongly supported a diagnosis of metastatic cervical SCC to the stomach, a rare site for cervical cancer metastasis, rather than a primary gastric squamous carcinoma.

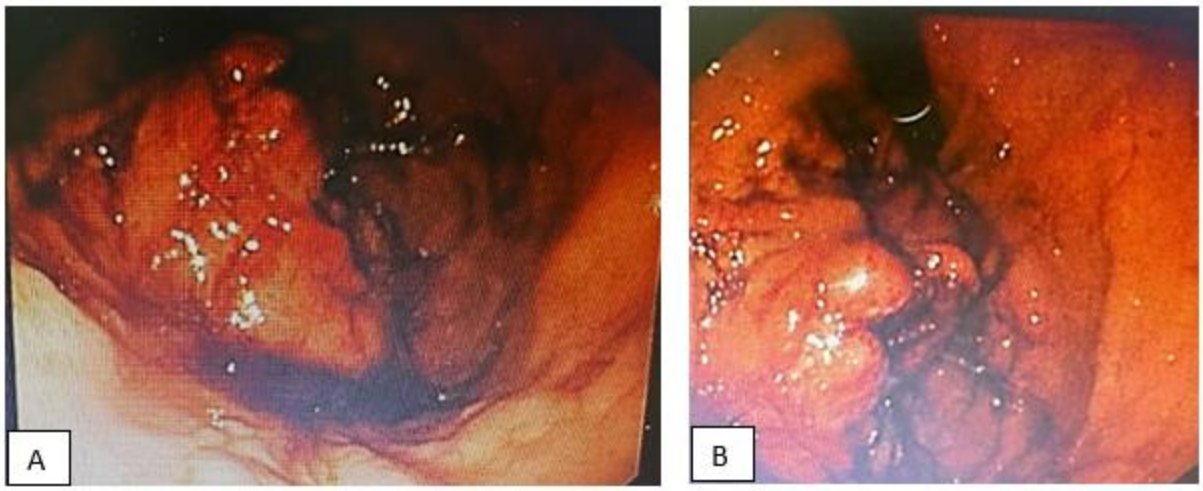

Figure 1: (A) OGD demonstrated a large fungating, friable mass with irregular ulceration in the gastric fundus. (B) Additional views displaying nodular mucosal involvement and active bleeding.

Staging imaging identified a locally invasive gastric mass involving the splenic hilum, distal pancreas, left diaphragm, and splenic infarction [Figure 2]. No distant metastases were identified in the liver or lungs. PET-CT findings showed no hypermetabolic lung or mediastinal lesions.

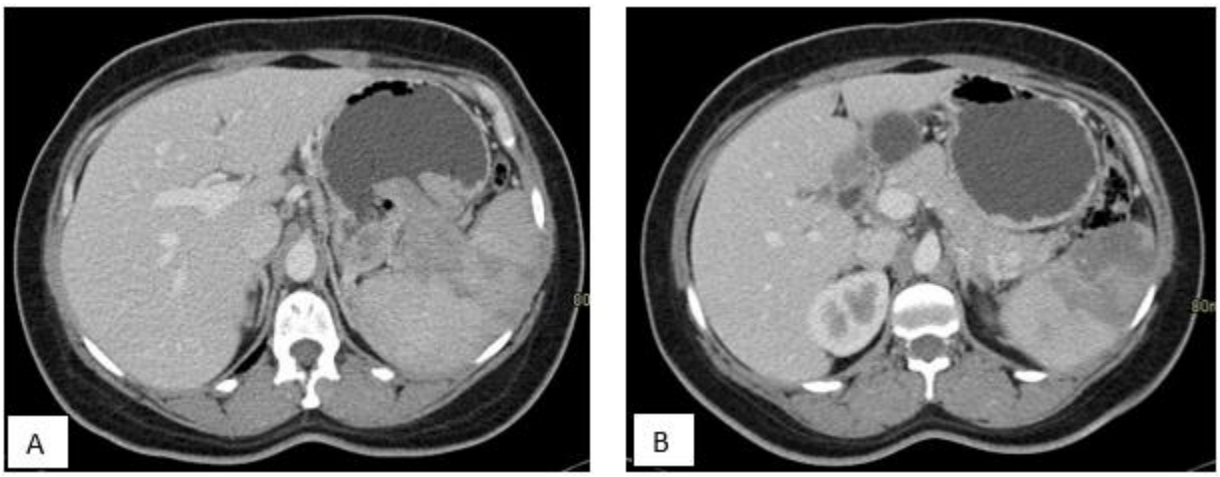

Figure 2: (A) Contrast-enhanced axial CT scan demonstrating a large, heterogeneous mass centered in the gastric fundus, with clear evidence of local invasion into the splenic hilum and adjacent structures. The mass displays mixed attenuation with areas of necrosis and exerts a mass effect on surrounding organs. (B) Axial CT image showing associated hypodense regions within the spleen, consistent with segmental splenic infarction secondary to tumor infiltration of the splenic vasculature.

Given the extent of disease and her stable performance status, she underwent total gastrectomy with en-bloc resection of the spleen, distal pancreas, left diaphragm, and omentum, along with D2 lymphadenectomy and Roux-en-Y reconstruction. Intraoperative findings confirmed extensive local invasion without peritoneal disease or ascites.

Final pathology of the surgical specimen confirmed metastatic moderately to poorly differentiated squamous cell carcinoma consistent with cervical origin, infiltrating the stomach, spleen, distal pancreas, and diaphragm. Thirty regional lymph nodes were reactive but free of metastases. Both proximal and distal surgical margins were negative.

The patient's postoperative course was uneventful. She received nutritional support, vaccinations, adjuvant therapy and routine surveillance. Eight years follow up postoperatively showed no evidence of active disease recurrence, demonstrating sustained remission despite the aggressive initial presentation. She was recently seen in the clinic with ECOG-0, being active and able to carry out her pre-disease routine activities without restriction.

This case highlights a rare presentation of metastatic cervical squamous cell carcinoma to the stomach, successfully managed with radical surgical resection and subsequent follow-up, emphasizing the importance of comprehensive evaluation and aggressive multidisciplinary management in select cases.

Discussion

The presented case of metastatic cervical squamous cell carcinoma (SCC) to the stomach represents a rare and diagnostically challenging scenario, offering critical insights into the management of atypical metastatic gynecological malignancies. Given its rarity, this case contributes valuable insights into diagnostic strategies, the role of immunohistochemistry (IHC), and potential management pathways, including aggressive surgical intervention, in selected patients.

The occurrence of primary gastric squamous cell carcinoma (SCC) is rare, necessitating exclusion of metastatic disease upon diagnosis, as current evidence highlights the imperative to investigate potential primary origins.[4,7] Metastatic involvement of the stomach itself is infrequent, with primary malignancies predominantly arising from the esophagus, cutaneous melanoma, breast, and lung, which collectively account for most documented cases. Cervical cancer and other gynecological malignancies represent an exceptionally rare subset of primary tumors associated with gastric metastases.[1,8,9] This aligns with the patient's presentation, as cervical SCC typically metastasizes to locoregional lymph nodes, lungs, liver, or bones rather than the gastrointestinal tract.[10]

Endoscopic findings in this case, including a fungating, ulcerated gastric mass, were pivotal in raising suspicion for malignancy. However, metastatic lesions often mimic primary gastric carcinomas radiographically and endoscopically, necessitating histopathological and immunohistochemistry (IHC) for definitive diagnosis. The tumor's IHC profile (p16, CK5/6, CK7, and p63 positivity) confirmed its cervical origin, distinguishing it from primary gastric SCC, which typically lacks p16 expression and exhibits CK20 positivity.[11,12]

Current management of gastric metastases from cervical cancer lacks standardized guidelines, with most reported cases managed palliatively via endoscopic interventions, chemotherapy, or radiotherapy. In contrast, the present case demonstrated that radical surgery may yield durable remission in carefully selected patients. The decision to proceed with total gastrectomy, en-bloc resection of involved organs, and D2 lymphadenectomy was guided by the localized disease burden, absence of distant metastases, and the patient's preserved functional status. Such aggressive resection aligns with limited case series advocating curative-intent surgery for oligometastatic gynecological malignancies.[13]

A retrospective analysis of 20 patients with gastric metastases arising from diverse primary malignancies demonstrated universally poor prognoses, with no patients surviving beyond two years despite surgical resection in two cases.[8] These findings align with broader literature documenting the dismal survival outcomes associated with gastric metastases from cervical origin.[1,2,14] Notably, our patient stands in stark contrast, achieving 8-year disease-free survival following radical resection. This represents the potential benefits of radical resection when negative margins (R0) are achieved in carefully selected patients, particularly when metastatic disease is anatomically confined.[15] While systemic therapies (e.g., platinum-based chemotherapy) remain cornerstone treatments, surgery may augment survival in localized metastatic niches, especially when combined with a multidisciplinary framework.[13,16]

An additional consideration in this patient is the strong family history of gynecological malignancies (three first-degree relatives with uterine cancer) raises questions about potential hereditary predispositions. While cervical SCC is primarily linked to HPV, familial clustering of gynecological cancers may suggest underlying genetic susceptibility, such as Lynch syndrome or BRCA mutations. This patient will need genetic counseling, which could further inform therapeutic and surveillance strategies.[17]

Conclusion

This report illustrates that gastric metastasis from cervical SCC, though rare, warrants consideration in patients with prior gynecological malignancies presenting with gastrointestinal symptoms. Multimodal diagnostics—combining endoscopy, IHC, and imaging—are essential for accurate diagnosis. Radical surgical resection, when feasible, may offer prolonged survival in localized disease, challenging the traditional palliative paradigm. Future studies should explore biomarkers predictive of oligometastatic behavior and refine patient selection criteria for aggressive interventions.

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